

CLAIMS

What is claimed is:

1. A method of blending at least two images using a blending unit in a graphics engine, the blending unit including a plurality of multipliers, the method comprising the steps of:
 - receiving a request for blending the at least two images, each image having a pixel format; and
 - reconfiguring each blending unit multiplier to perform at least two operations per cycle.
2. The method of claim 1, wherein the step of reconfiguring includes bit slicing each multiplier according to the pixel format.
3. The method of claim 1, wherein the step of bit slicing includes bit slicing each multiplier to accommodate a first bits/pixel parameter of the pixel format.
4. The method of claim 3, wherein the step of bit slicing includes bit slicing each multiplier to accommodate a second bits/pixel parameter of the pixel format.
5. The method of claim 3, wherein the first bits/pixel parameter is a highest bits/pixel parameter of the pixel format.

1 6. The method of claim 5, wherein the highest bits/pixel parameter is no higher than
2 8 bits/pixel and no less than 1 bit/pixel.

1 7. The method of claim 1, wherein each blending unit multiplier is an 8 bit-by-8 bit
2 multiplier.

1 8. A graphics system having a blending unit, the blending unit comprising:
2 a plurality of multipliers; and
3 a reconfiguration module that reconfigures each multiplier of the blending unit to
4 perform at least two operations per cycle.

1 9. The graphic system of claim 8, wherein the reconfiguration module bit slices each
2 multiplier according to a pixel format.

1 10. The graphics system of claim 8, wherein the reconfiguration module bit slices
2 each multiplier to accommodate a first bits/pixel parameter of a pixel format, and then a
3 second bits/pixel parameter of the pixel format.

1 11. The graphics system of claim 8, wherein the blending unit is part of a graphics
2 engine.

1 12. The graphics system of claim 8, wherein the graphics engine further comprises at
2 least one of a raster operator, a color key operator, a pixel bit mask operator, a patter write
3 mask operator and a pixel boundary modify write operator.

13. A digital video system comprising:
a processor;
a memory;
an application resident in memory; and
a graphics system for generating graphics, the graphics system including:
a blending unit including a plurality of multipliers, and
means for reconfiguring each multiplier of the blending unit to perform at
least two operations per cycle.

14. The system of claim 13, wherein the means for reconfiguring bit slices each
multiplier according to a pixel format.

15. The system of claim 13, wherein the means for reconfiguring bit slices
each multiplier to accommodate a first bits/pixel parameter of the format, and then a
second bits/pixel parameter of the format.

16. The system of claim 13, wherein the means for reconfiguring is part of a graphics
engine.

17. The system of claim 16, wherein the graphics engine further comprises at
least one of a raster operator, a color key operator, a pixel bit mask operator, a pattern

3 write mask operator and a pixel boundary modify write operator.

1 18. The system of claim 13, wherein the graphics system further comprises a scaler.